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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,179	01/14/2005	Yugo Hasegawa	018765-202	8504

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EXAMINER	
HUANG, MEI QI	
ART UNIT	**PAPER NUMBER**
1713	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/521,179	HASEGAWA ET AL.	
	Examiner	Art Unit	
	Mei Q. Huang	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *01/14/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what the difference among T_{g1}, T_{g2}, and T_{g3} cited by this claim is. The difference could be the difference between T_{g1} and T_{g2}, T_{g1} and T_{g3}, or T_{g2} and T_{g3}. For the purpose of examination, the examiner herein interprets this claim as "the difference between T_{g1} and T_{g3} or T_{g2} and T_{g3}".

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishigaki et al. (US Pat. 4,822,727) in view of Wang et al. (US Pat. 5,536,627).

The prior art to Ishigaki et al. provides a silver halide photographic light-sensitive material having on a support at least one light-sensitive silver halid emulsion layers and at least one light-insensitive upper layers on the emulsion layer, in which at least one of said light-insensitive upper layers contains a polymer latex having a glass transition point of at least 20° C. The silver halide photographic light-sensitive material has high sticking resistance and improved layer strength (Abstract). Examples of the polymer latex having T_g of at least 20° C is shown at column 3, lines 40+, which includes methacrylic copolymer represented by formula L-1. Tg is determined by a differential scanning calorimetric (DSC) measurement method (column 2, lines 58-60). The T_g of at least 20° C for the methacrylic copolymer covers the instantly claimed T_g of 110° C or more measured by DSC. It has been consistently held that even a slight overlap in range establishes a *prima facie* case of obviousness. *In re Woodruff,* 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) or *Titanium Metals Corp. of America v. Banner,* 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

In regard to the limitation of the T_g measured by rigid pendulum visoelastometer. as discussed above, the prior art light-insensitive upper layers of methacrylic copolymer having T_g of at least 20° C is substantially identical to the instantly claimed one. Therefore, it is the examiner's position to believe that the prior art methacrylic copolymer must inherently possess the same T_g measured by rigid pendulum

visoelastometer. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to the applicant to establish an unobviousness difference. *In re Best,* 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); *In re Fitzgerald,* 619 F.2d 67, 70, 205 USPQ 594, 596, (CCPA 1980).

As to the limitation of the wear resistance determined by a Taber abrasion testing method being 80 times or more, Ishigaki et al. do not use the instantly claimed taber abrasion testing method. The prior art to Wang et al. discloses a photographic element with improved cinch scratch resistance. The back side layer of the photographic element is hydrophobic materials including polymers or copolymers prepared from ethylenically unsaturated monomers such as acrylates including acrylic acid, methacrylic acid, methacrylates including methacrylic acid acrylamides, etc (column 4, line 45, 58+). Taber abrasion tests were carried out on these back side coatings is shown at column 6, lines 50-53). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the Taber abrasion test, as taught by Wang et al., to further define the physical properties of Ishigaki et als' methacrylic copolymer layer because both inventions of Wang et al. and Ishigaki et al. are in the same field of endeavor, i.e. improving physical properties of the resin layer, including methacrylic copolymer, for the photographic materials.

As to claims 2-3, as discussed above, the prior art light-insensitive upper layers of methacrylic copolymer having T_g of at least 20° C is substantially identical to the instantly claimed one. Therefore, it is the examiner's position to believe that the prior art methacrylic copolymer must inherently possess the same the difference between T_{g1}

and T_{g3} or T_{g2} and T_{g3}, and the same calculated glass transition temperature, T_{g3}. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to the applicant to establish an unobviousness difference. *In re Best,* 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); *In re Fitzgerald,* 619 F.2d 67, 70, 205 USPQ 594, 596, (CCPA 1980).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Uchida et al. (US Pat. 4,692,396).

The prior art to Uchida et al. teaches a photopolymerizable resin composition for aqueous-developing type dry film resists which comprises a binder resin comprising a copolymer of methyl methacrylate, methyl acrylate and methacrylic acid. The binder resins used have a weight average molecular weight of 40,000-300,000 (column 2, line 5, to column 3, line26). A method of preparing the photopolymerizable resin includes dissolve the binder resin in a solvent, such as isopropyl alcohol (column 2, lines 7-14).

As to the limitation of how the methacrylic copolymer resin being produced in claim 4, it is noted that this claim is a product-by-process claim. Even though product-by-process claims are limited by and defined by the process, determination of

patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process. *In re Thorpe,* 777 F. 2d 695,698, 277 USPQ 964, 966 (Fed. Cir. 1985). Since Uchida et als' methacrylic copolymer is substantially identical to that of the applicant's, applicant's process is not given patentable weight in this claim.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mei Q. Huang whose telephone number is (571) 272-3549. The examiner can normally be reached on 8am - 4pm, Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mei Q. Huang
Examiner

July 21, 2005

DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700